

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) An apparatus for temporarily preserving a subglass of an entrance door of a driving room of a heavy equipment, said apparatus comprising:

a subglass;

a lower bracket adapted to be attached to a lower portion of an inner surface of said entrance door of a driving room, said lower bracket ~~from~~ having a mounting groove therein which is upwardly opened for ~~inserting~~ receiving a lower portion of the subglass therein and ~~support~~ thereby supporting the lower portion of the subglass inserted in the mounting groove;

an upper bracket adapted to be attached to an upper portion of an inner surface of said entrance door of the driving room, said upper bracket ~~supports~~ supporting an upper portion of the inner surface of the subglass ~~inserted in said lower bracket;~~ and

a locking apparatus adapted to be attached to an upper portion of the inner surface of said entrance door of the driving room detachably supports an upper portion of the outer surface of the subglass in close contact with the upper bracket so that the subglass can be removed from the upper and lower brackets in a state that it is inserted in the mounting groove of the lower bracket;

wherein said locking apparatus includes:

a fixing member adapted to be attached to an inner surface of said entrance door of the driving room;

a handle in which an upper end of the same is rotatably engaged to the fixing member, a lower end of the handle being space from and generally parallel to the subglass;

a support member which is protruded from an inner surface of the handle and is integrally rotated with the handle and supports an outer surface of the subglass; and
a handle limiting means for limiting the rotation of the handle.

2. (cancelled)

3. (currently amended): The apparatus of claim 1, wherein said handle limiting means includes:

a limiting rod which has one end axially engaged with the fixing member based on a rotation and axial direction movement and the other end engaged with the handle based on an axial direction movement for thereby rotatably fixing the handle to the fixing member based on a downward rotation in a limited angular range;

a compression spring which elastically supports the limiting rod with respect to the fixing member and controls the axial direction movement of the limiting rod so that the engaging shoulder portion formed in the limiting rod is inserted in the engaging groove of the fixing member at a maximum downward rotation angle of the limiting rod;

an escape prevention shoulder portion installed in a rear end of said limiting rod;

an engaging shoulder portion protruded in an axial direction, formed in one side of said escape prevention shoulder portion; and

an engaging groove having the same phase as said engaging shoulder portion at a maximum downward rotation angle of said limiting rod.

4. (withdrawn): A heavy equipment vehicle comprising:

a driving room;

at least one entrance door to a lower portion of said driving room;

at least one subglass attached to said entrance door; and
an apparatus for temporarily preserving said subglass.

5. (withdrawn): The heavy equipment according to claim 4, wherein said subglass is detachably installed to said entrance door of said driving room.

6. (withdrawn): The heavy equipment according to claim 5, wherein said apparatus for temporarily preserving said subglass includes:

a lower bracket attached to a lower portion of an inner surface of an entrance door of a driving room, said lower bracket forms a mounting groove which is upwardly opened for inserting a lower portion of the subglass therein and supports the subglass inserted in the mounting groove;

an upper bracket attached to an upper portion of an inner surface of the entrance door of the driving room, said upper bracket supports an upper portion of the inner surface of the subglass inserted in the said lower bracket; and

a locking apparatus attached to an upper portion of the inner surface of the entrance door of the driving room, said locking apparatus detachably supports an upper portion of the outer surface of the subglass in close contact with the upper bracket in a state that it is inserted in the mounting groove of the lower bracket;

wherein said locking apparatus includes:

a fixing member attached to an inner surface of the entrance door of the driving room;

a handle in which a rear end of the same is rotatably engaged to the fixing member;

a support member which is protruded from an inner surface of the handle and is integrally rotated with the handle and supports an outer surface of the subglass; and
a handle limiting means for limiting the rotation of the handle.

7. (withdrawn): The apparatus of claim 6, wherein said handle limiting means includes:

a limiting rod which has one end axially engaged with the fixing member based on a rotation and axial direction movement and the other end engaged with the handle based on an axial direction movement for thereby rotatably fixing the handle to the fixing member based on a downward rotation in a limited angular range;

a compression spring which elastically supports the limiting rod with respect to the fixing member and controls the axial direction movement of the limiting rod so that the engaging shoulder portion formed in the limiting rod is inserted in the engaging groove of the fixing member at a maximum downward rotation angle of the limiting rod;

an escape prevention shoulder portion installed in a rear end of said limiting rod;

an engaging shoulder portion protruded in an axial direction, formed in one side of said escape prevention shoulder portion; and

an engaging groove having the same phase as said engaging shoulder portion at a maximum downward rotation angle of said limiting rod.

8. (new) An apparatus for temporarily preserving a subglass of an entrance door of a driving room of a heavy equipment, said apparatus comprising:

a subglass;

a lower bracket adapted to be attached to a lower portion of an inner surface of said entrance door of a driving room, said lower bracket having a mounting groove

therein which is upwardly opened for receiving a lower portion of the subglass therein thereby supporting the lower portion of the subglass inserted in the mounting groove;

an upper bracket adapted to be attached to an upper portion of an inner surface of said entrance door of the driving room, said upper bracket supporting an upper portion of the inner surface of the subglass; and

a locking apparatus adapted to be attached to an upper portion of the inner surface of said entrance door of the driving room that detachably supports an upper portion of the outer surface of the subglass in close contact with the upper bracket so that the subglass can be removed from the upper and lower brackets;

wherein said locking apparatus includes:

a fixing member adapted to be attached to an inner surface of said entrance door of the driving room;

an elongated handle in which an upper end of the same is rotatably engaged to the fixing member, a lower end of the handle being spaced from and generally parallel to the subglass;

a support member affixed to and protruding from an inner surface of the handle towards the subglass, the support member pressing the subglass against the upper bracket when the handle is in a first position to hold the subglass in the upper and lower brackets, with the support member being disengaged from the subglass when the handle is rotated to a second position to thereby allow the subglass to be removed from the upper and lower brackets to permit escape from the driving; and

a handle limiting means for limiting the rotation of the handle.